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## **ABSTRACT**

Based on results of a project undertaken in Finland over many years, this definition of transfer is offered: Transfer is both a facilitating and limiting factor which provides one basis for the learner to form and test hypotheses about the second language he or she is learning. Theory and research on transfer are discussed as they relate to item versus system learning processes, perceived language distance or relatedness, the learner's receptive versus productive competence, and the learner's stage of learning. It is concluded that the four most important variables in relation to the role played by the first language in learning the second language are: (1) the learner's age and mode of learning, with adults using transfer more than children and with more transfer occurring in a foreign-language learning situation than in a second-language learning situation; (2) spontaneity of utterance, with more transfer in elicited utterances, particularly when much time is available for response; (3) the learner's proficiency in the second and other languages; and (4) differences in individual learning styles. More quantitative research on the role of these factors is recommended. A three-page list of references concludes the study. (MSE)



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# TRANSFER IN RELATION TO SOME OTHER VARIABLES IN L2-LEARNING

The starting point for this paper is one of the few aspects of learning theory that seem to be generally accepted: the principle that the language learner tries to facilitate his learning task whenever po sible by making use of any relevant prior knowledge that he has.

Some of this relevant prior knowledge in foreign language learning is the learner's automatized L1-knowledge. However, exactly how the L1 influences L2-learning is still not clear, although it is a topic of research that has recently been attracting more and more scholarly attention, in Europe especially in Holland and the Scandinavian countries. The 1981 conference on language transfer in Ann Arbor produced an interesting conference volume edited by Susan Gass and Larry Selinker (1983), where some new and promising approaches to transfer were conveniently brought together between the same covers. Two other anthologies on the same topic are forthcoming those by Sharwood Smith & Kellerman and Dechert & Raupach.

Traditionally, transfer was regarded as indicating the 'transfer' of Ll-surface forms and patterns, but to many scholars today the term is objectionable because of its traditionally close associations to a particular theory of learning. Indeed, several scholars, notably Pit Corder (1979, 1983), avoid the term transfer altogether. In fact, L1-transfer is probably best regarded not as a process in itself; it is merely that particular kind of reliance on prior linguistic knowledge which originates in the learner's L1. Sometimes knowledge of the L1 or some other language may manifest itself in a form 1 have elsewhere (1983) called borrowing, which is largely

due to formal cross-linguistic similarities between individual items. The learner's search for an individual lexical item here activates a word in the learner's L1 or some other language and this word is used in an L2-context in a modified or unmodified form (cf. Ringbom 1985a). At other times, semantic properties of an L1-word or rules pertaining to L1-syntax or L1-word formation are applied to L2-words. Evidence of such cross-linguistic influence is most easily seen in learners' errors, but it is obvious that it also has a facilitating effect on L2-learning. Transfer is thus a facilitating and limiting factor which provides one basis for the learner's forming and testing his hypotheses about the L2.

My view of transfer has been formed on the basis of the results of a project undertaken in Finland over many years, where Finnish and Finland-Swedish learners of English have been compared, especially with regard to the number and types of errors made.2 The situation in Finland is, in fact, unusually favourable for investigations of multilingualism. Finnish and Swedish are the two official languages of the country. A: Swedish is so closely related to English but Finnish is totally unrelated to it, there is a particularly fruitful field for research into the role of the Li in learning a foreign language. The Swedish-speaking Finns make up about 6% of the total population and are concentrated on the coastal areas in the south and west. The great majority of them regard themselves not as Swedes living in Finland, but primarily as Finns, with a mother tongue different from that of the majority of the population. Thus, on the whole Finland can be regarded as a bilingual but unicultural country, or at least as near unicultural as it is possible to find anywhere in the bilingual countries in the world.

Generally speaking the results of the project confirm the common sense assumption that in learning English, Swedish-speaking Finns, who learn a related L2, have a considerable advantage over the Finns. This advantage is especially marked at the early stage of learning and it appears to be clearer in the receptive skills than in the productive skills and it is also more marked in the oral skills than in the written skills. The differences between Finns and Swedish Finns learning English can be referred back to the general differences between learning a related foreign language and learning a totally unrelated one, and in the following I shall try to discuss the role of the L1 within a wider reference frame, placing it in relation to

One of the eternal questions of applied linguistics is, "What does one actually learn when learning a language?" This question has been illuminated by a distinction recently made for L1-learning by Alan Cruttenden, which can also be applied to L2-learning.

Cruttenden (1981) points out that the language learner cannot start learning the L2-systems of phonology, intonation, morphology, syntax and semantics directly. In order to do that he first has to know a number of items. According to Cruttenden, item learning "involves a form which is uniquely bonded with some other form or with a unique referent, whereas system-learning involves the possibility of the commutation of forms or referents while some (other) form is held constant." (1981:79). Learning thus takes place initially on an item by item basis at all levels of language.

Before one can learn systems, one must learn items. This is no doubt true of L2-learning as well as of L1-learning. But if the distinction between item learning and system learning, which, like linguistic distinctions generally, should be viewed as a continuum without sharply defined boundaries, is applied to L2-learning, there are differences from the L1acquisition context resulting from the differences in the cognitive makeups of the learners. One such difference is that the unique bondage between items that the beginning L2-learner establishes is usually cross-linguistic in nature, especially in a foreign language learning context. Consciously or, more probably, subconsciously, the beginning learner constantly tries to simplify his learning task by assuming equivalence between what is new, that is, L2-items, and what is known from before, that is, L1-items. An item here refers not only to lexical units, words, but may be a phoneme, a morpheme, a pragmatic unit, or a full utterance, as when the tourist with a minimal L2-proficiency has memorized certain useful phrases, such as "Where is the railway station?" or "Please say it in English".

In the closed systems of phonology and morphology, the stage of item learning does not normally take a very long time, at least not if the learner has some kind of reference frame he can fall back upon. In the open system of lexis, on the other hand, both item learning and system learning are important at all stages of learning: the multitude of existing lexical items, and the complex ways in which they are related to items in another language provide a learning task where new items must be learnt even at a



stage when the learner has already mastered a large number of lexical systems. There is a perceived cross-linguistic one-to-one item correspondence, where the learner, no doubt subconsciously, has first established a primary counterpart (cf. Arabski 1979) to an L1-item and then conceives of this primary counterpart as having the same functions and meanings as this L1-item. This is one-to-one correspondence, that is, item learning, but as soon as the learner becomes aware that the L1-word may on some occasions have another equivalent in the L2 than the primary counterpart there is no longer a one-to-one correspondence and the learner has thus started system learning. In learning scientific language, the L2-learner who has already mastered a basic knowledge of the language (mastered a humber of L2-items and systems) the learning is very much item learning, since the learner can operate with reasonably safe cross-linguistic one-to-one correspondences.

Scientific terminology is one of the few restricted areas where the learner can fairly safely rely on translational equivalence between lexical items. In most areas, however, the oversimplified assumed cross-linguistic equivalences of item learning in lexis have to be modified by the learning of the underlying lexical systems, for instance the rules of collocation and the complex cross-linguistic relations between L1-items and L2-items of similar meaning. These modifications, lexical system learning, form an essential part of the learner's progress towards improved proficiency. The more the learner progresses, the more he perceives the inadequacies of initially perceived one-to-one cross-linguistic equivalences between individual items, which, however, are of extremely great importance to the beginning learner, who hae very little other knowledge to fall back upon than his L1.

There are, naturally, great variations in how easily cross-linguistic equivalences between L1- and L2-items can be established, but the most important factor determining this variation is probably the perceived distance between L1 and L2. The perceived distance is not identical with but very similar to the genetic relationship between the two languages. It is true that even learners with the same L1 may differ in their awareness of similarities of L2-patterns to L1-patterns and in their willingness to transfer these patterns, but generally speaking learners will perceive the distance as small between genetically closely related languages and as large



between wholly unrelated languages. The beginning learner of a closely related L2 will simply find it easy and natural to establish a number of rough equivalences to his L1, especially when he tries to understand the L2.

How and on what basis does the beginning learner then establish such simplified cross-linguistic equivalences between lexical items? As far as receptive knowledge goes, the learner can, apart from the contextual cues, make use of two different types of linguistic cues, that is, intra-lingual and interlingual ones, as was pointed out by Carton (1971) (cf. Haastrup (1984)). The existence of cognates provides an important source for interlingual cues; if L2-items are formally similar to L1-items which are semantically near-identical or at any rate semantically closely related, this greatly facilitates the beginner's rough understanding of a foreign language text, even if the understanding may be only partial or approximate. The English learner of Swedish will immediately perceive the meaning of a large number of identical or near-identical items in Swedish, such as bok, arm, hand and finger. Innumerable other, less obvious similarities facilitate the inference of at least an approximate meaning of hitherto unknown words for the Swedish learner of English and the English learner of Swedish.

The existence of cognates has been shown to be a facilitating factor in foreign language learning (see e.g. Hammer (1978) and Morrissey (1978)). However, it probably affects the productive skills somewhat differently from the receptive skills. We must also remember that receptive and productive skills are not of equal importance to learners at different stages of learning. To the beginning learner the receptive skills provide a more immediate target, whereas the productive skills come later, except for a small number of words and phrases perceived to be of vital importance. Although the exact relation between receptive and productive skills is not clear, we may assume that receptive knowledge tends to precede productive knowledge: receptive knowledge is always more extensive than productive at all stages of learning. You have to be able to read in order to write (but not the other way round), and without being able to understand spoken language not much intelligent or even intelligible conversation can be made.



One important characteristic of the receptive skills is that their emphasis lies on the communicative aspects: the reader or listener concentrates on understanding the message without necessarily having to pay much attention to structural details. What the beginning L2-learner of a related language acquires may frequently be a partial or approximate understanding of a particular L2-text, arrived at by inference, often made by the aid of cognates, but this limited understanding may often be sufficient at the early stage of learning. Grammaticality and acceptability are concepts which are far less important to the reader or listener than to the speaker or writer.

One corollary of the emphasis on the communicative nature of receptive competence is that mere lexical item learning may take the beginning learner quite far, that is, when the L2 can be perceived to be so close to the learner's L1 that he will be able to use his L1 as a workable reference frame at the early stages of L2-learning. For productive competence, on the other hand, mere item learning works only to a very limited extent: the learner here needs a much more complete control of the underlying systems of both lexis and grammar. He must have acquired at least a basic knowledge of many of these systems in order to be able to combine the units according to the demands of the situation. Productive knowledge thus presupposes a great deal of system learning whereas receptive knowledge does so only to a very limited extent.

The role of the L1 in L2-learning is clearly most important at the early stages of learning and then decreases as learning progresses. This has been shown in recent papers by Seliger (1978), Taylor (1975) and especially Dommergues & Lane (1976). The beginning learner has not yet acquired an L2-frame of reference and has very little else to rely on than the hypothesis that the L2 in many, or at least in some respects will work in a similar way to his L1. Intermediate and advanced learners will show a complex interaction of L1- and L2-influence, with the former gradually decreasing as the learner becomes more proficient. Little is known about this L1-L2 interaction, not least because it will vary a great d-al depending not only on the perceived distance between L1 and L2, but also on the individual characteristics of the learner: how willing he is to infer meaning from interlingual cues and to what extent he is apt to be influenced by L1-constraints when producing L2-viterances.



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If the learner can establish simplified cross-linguistic equivalences between lexical items this will facilitate his learning at the initial stages. However, if these cross-linguistic similarities are confined to relatively infrequent loanwords they will not help the beginning learner very much, as, for example, the English learner of some Slavonic languages will soon notice. There is a much more important condition than lexical similarities between loanwords that must be met for the learner to achieve even an elementary receptive skill in a foreign language: he must have formed an idea of how the basic linguistic L2-categories function. Yet this is not necessarily the result of L2-teaching or even L2-learning: the learner may simply have a considerable part of this knowledge automatized in his L1-knowledge, if the L2 is related to his L1. Here lies an important difference between learning a related and an unrelated foreign language: the learner of a related language can bring much more relevant knowledge to the task and, in fact, has much less to learn than the learner of an unrelated language, as Corder (1979) has emphasized.

On the other hand, if the beginning learner cannot rely on rough equivalences between grammatical categories, it will be very difficult for him to establish oversimplified one-to-one equivalences between individual lexical items. Thus mastery of the meanings and functions of high-frequency words is of extreme importance at the early stages of learning. The use of English articles and prepositions by Finnish and Finland-Swedish learners may be illuminating here, since Finnish does not have these categories, but Swedish has.

Several error analysts have pointed out that grammatical categories nonexistent in the L1 give the learners the greatest learning problems. The English articles have frequently been mentioned as an especially great learning problem for those learners whose mother tongues lack articles. Duškova (1969) found this for Czech learners, similarly Oller & Redding (1971), who divided their subjects into two groups, one where the learner's L1 had formal equivalents to English articles and the other which had not. Several investigations have pointed to the great problem Finnish learners have here, notably Herranen (1978), Sajavaara (1983), Granfors & Palmberg (1976) and Ringbom (1978a). It seems that "the lower the general standard of the Finns, the greater is the tendency simply to ignore the existence of the English articles in English" (Ringbom 1978a: 139).



The great majority of the frequent article errors in English made by Finnish learners consist of omitting the articles where they should have been included. There is a tendency for beginners, and even some intermediate learners to perceive as redundant a grammatical L2-category which is nonexistent in their L1.6 A Finnish learner simply cannot find a reference frame for the category, just as the beginning Swedish or English learner of Finnish subconsciously may tend to regard most of the fifteen Finnish cases of the noun as redundant and frequently leave them out.

The occurrences of high-frequency words in Finnish learner language (see Ringbom 1985b) clearly show the difference between intermediate and advanced learners of English. Compared with advanced learners and with Finland-Swedish learners, Finnish learners at a low proficiency level have considerably lower frequencies of those high-frequency words (articles and certain prepositions) to which primary counterparts in Finnish cannot be easily established.

It seems that the degree of difficulty of a foreign language to a learner will largely be determined, not by the linguistic differences between these two languages per se, but by how naturally the learner can and will establish equivalences between the languages at the initial stages of learning. When the learner of a closely related L2 makes errors in production due to the oversimplified one-to-one equivalences he has established at 20 early stage of learning, this remains a relatively minor problem by comparison with those of a corresponding learner for whom it is difficult or even impossible to establish such cross-linguistic equivalences to his L1 and who still remains at a stage when he has to grapple with the most basic organizational problems in the target language, trying to make sense of a linguistic reality often completely unfamiliar to his way of reasoning. It is also clearly reasonable to assume that it is easier to convert a receptive skill for use in production than starting to learn the productive skill from scratch. The initial stages of learning must be considered absolutely crucial for further learning, as foreign language teachers frequently - and rightly - emphasize to beginning learners. Linguistic differences between L1 and L2 may not automatically mean learning problems, but if the learner is able to perceive structural and lexical similarities between L1 and L2 there will be an absolutely essential absence of important initial learning problems, especially as far as item learning and the receptive skills are concerned.



There are thus two basically different questions that concern if not the underlying processes, at least the products reflecting language transfer:

a) How much of the learner's automatized L1-knowledge (his knowledge of L1-items) can be profitably employed by extending it to L2-learning?

and

b) How much of the learner's controlled effort is needed to free him from the constraints of the L1, where there are constraints? (Constraints here normally presuppose some similarity that the learner has perceived between L1 and L2).

When transfer has been discussed in previous research it has nearly always been solely in terms of question (b). For phonology and pragmatics, question (b) may well be the more important of the two, since the difficulties of acquiring at least a superficial receptive competence in these areas are comparatively restricted and the learner's real problems lie in his development of an ability to use the system underlying L2. The highly automatized phonological and pragmatic L1-systems are not changed or modified for actual productive use without considerable controlled effort.

In lexis and grammar, however, question (a) seems the more important of the two, not least because it is an absolutely essential question at the earliest stages of L2-learning. The learner tries to establish as many simplified cross-linguistic equivalences as possible to his L1, and only afterwards, when his L2 reference frame is extensive enough will he start modifying these simplified equivalences to make them conform more closely to actual L2-usage. The initial stages of learning and their fundamental importance for anything learnt later must be heavily emphasized. The natural procedure in learning is to establish a relation between a proposition and what already exists in the mind. We do not establish negative relations until we are sure that a positive relation does not exist (cf. Noordman-Vonk (1979)). Psychologically, similarities are perceived before differences and in the words of Carl James, "it is only against a background of sameness that differences are significant" (1980:169). The advice sometimes given to foreign language teachers first to stress, even to overemphasize the similarities between L1 and L2 at the early stages of learning therefore seems eminently sensible.



In this paper transfer has been discussed above ali in relation to four important variables: item learning vs. system learning, perceived language distance, receptive vs. productive competence and the learner's stage of learning. There are, of course, many other variables relevant to the role played by L1 in L2-learning, but I shall here confine myself to a brief mention of those that seem most important:

- The learner's age and the mode of learning. It seems probable that adults make more use of transfer than children do and that there is more transfer in a foreign-language learning situation than in a second-language acquisition environment.
- Spontaneous vs. elicited utterances. There may well be more transfer in elicited utterances, at least in those situations where the subject has a lot of time at his disposal.
- The learner's proficiency in L2 and other languages. Not only is the stage of L2-learning important in that there is more L1-transfer at early stages than at later stages, but the learner's proficiency in other languages may also cause transfer, though mostly in item learning only, especially in the field of lexis.
- Differences between individual styles of learning. Some learners, often highly successful ones who have a general interest in linguistic matters, may, for instance, rely on the so-called key-word method for learning new words in the foreign language (see e.g. Pressley & Levin (1978)).

Previous work dealing with transfer is now abundant, but most of this is in the form of short articles and can be criticized for taking into account only a very few of the many relevant variables. We need a data-based survey of such variables in order to start finding out how they are interrelated, and such a work requires a book-length study, not just scattered references in a large number of isolated papers.

To get a clearer picture of the role played by the mother tongue in learning another language we must bear in mind the general principle of the learner trying to facilitate his learning task by making use of previous knowledge, especially his L1, wherever possible. The application of this principle works differently on receptive vs. productive competence and also differently on item learning vs. system learning.

### **NOTES**

- 1 My approach to transfer is, in fact, quite similar to that of Schachter's and Kellerman's contributions to Gass & Selinker (1983). Also, it does not differ much from the approach adopted by Faerch, Haastrup and Phillipson (1984).
- 2 For details of the project, see my papers listed in the bibliography.
- 3 See the papers by Kellerman (1977), Sharwood Smith (1979) and Juliane James (1977).
- 4 For a recent assessment of the relation between receptive and productive knowledge, see Teichroew (1982).
- 5 Cf. Postovsky (1974).
- 6 For the concept of redundancy, see George (1972).
- 7 For non-native language transfer, see Ringbom (1985a).
- 8 A first version of this paper was presented at the conference organized by the British Association of Applied Linguistics in Bangor, Wales, September 1984.

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